

54736 Deren

Work Order ID 52361

Tuesday, September 22, 2009 12:27:41 PM



Page 1

Item ID: D3391-021

Accept



Setup Start



Revision ID: H

Stop



Item Name: Fwd Tube Assembly

Start Date: 9/23/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 10/16/2009 Req'd Qty: 1.00



Customer:

Reference:

Approvals:

Process Plan:

RL MK

Date:

09-9-22

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

D3391

Rev H

100

0.00



Skidtubes

Skidtubes

Memo

0.00

Skidtubes

Cut extrusion to 46.52 +0.010 -0.020

Q.n 09-10-13

110

0.00



BENDING MACHINE - SKIDTUBES

CNC Bend 1

Memo

0.00

CNC Delta 100 Bender

Bend as per Dwg D3391 Using Bend Prog 3391021

DP 9-10-14

120

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

2) 500/10/15*h = 6.8/25°
L = 12.9°*

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Page 2

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Start Date: 9/23/2009 Start Qty: 1.00

Required Date: 10/16/2009 Req'd Qty: 1.00

Reference:

Cust Item ID:




Customer:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start

Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130  HAAS 1 HAAS CNC vertical machine #1	HAAS CNC VERTICAL MACHINING #1 Memo 1-Machine as per Folio FA590 Rev. <u>F</u> & Dwg D3391 Rev. <u>H</u> Identify as D3391-1 2-Deburr	0.00 0.00				<u>1</u>	<u>0</u>		
140  QC Quality Control	QC2- Inspect parts off machine FAI/FAIB Memo	0.00 0.00				<u>1</u>	<u>0</u>		
150  Mill Conv Conventional Milling Machine	CONVENTIONAL MILLING MACHINE Memo Drill X1 Aft cap as per Dwg D3391 .1875" dia	0.00 0.00				<u>1</u>	<u>0</u>		

H.A 09/10/21

H.A 09/10/21

ml 09/10/21

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Cust Item ID:

Required Date: 10/16/2009 Req'd Qty: 1.00

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

160

QC2- Inspect parts off machine FAI/FAIB

0.00

sub 09/10/21

QC

Memo

0.00

Quality Control

1 0

170

QC8- Inspect parts - second check

0.00

sub 09/10/21

QC

Memo

0.00

Quality Control

2 0

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Required Date: 10/16/2009 Req'd Qty: 1.00

Cust Item ID:

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start

Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

180

0.00



Skidtubes

Skidtubes

Memo

0.00

Skidtubes

1-Drill float bag holes as per Dwg D3391 using DT8798(Do not open tow cap holes to finish size)
(ONLY DRILL HOLES MARKED "A")

2-Drill Remaining two holes for tow cap using DT 8819 Locating off of .1875" holes drilled in previous step

3-Open tow cap holes to .208" as per Dwg D3391

4-Open Tow Ring hole to .640" as per Dwg D3391

5- open float bag holes 0.328" and counter sink as per dwg D3391

6-Deburr & Scribe Batch number Inside aft end.

7-Transfer drill D3391-021 with D3391-023

H 9/10/30

190

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

H 9/11/30

①

②

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Setup Start



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Stop



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Start Date: 9/23/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 10/16/2009 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

200	Chemical Conversion Coat per QSI005 4.1	0.00							
-----	---	------	--	--	--	--	--	--	--



HandFinish

Memo

0.00

Hand Finishing

1 9/11/30

210	QC3- Inspect Part Finish	0.00							
-----	--------------------------	------	--	--	--	--	--	--	--



QC

Memo

0.00

Quality Control

DP

9-12-1

220		0.00							
-----	--	------	--	--	--	--	--	--	--



Skidtubes

Skidtubes

Memo

0.00

Skidtubes

1-instal spacers as per dwg D3391

A/R Magnabond 6398 batch: 3112417

exp. date: 12/7/30

cure time 12hrs. as per QSI015

2- grind crossbolt flush

3-back drill crossbolt if necessary

1 9/12/2

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Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start

Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

230

QC5- Inspect part completeness to step on W/O

0.00

27 80112102

0.00

(4)



QC

Memo

Quality Control

240

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00

M 112148

0.00

BK 09-12-7

D.



Powdercoat

Memo

Powder Coating

START TIME: 10:55
OVEN TEMPERATURE: 320°
FINISH TIME: 11:25

250

QC3- Inspect Part Finish

0.00

27 M 09112107

0.00

(X1) 6



QC

Memo

Quality Control

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Reference:

Cust Item ID:




Customer:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start

Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
259  Skidtubes	Skidtubes	0.00							
	Memo	0.00							
	**** install D3591-1 spacer as per DSI9364 ****								
260  Packaging	Identify as per dwg & Stock Location: B52785	0.00							
	Memo	0.00							
280  QC	QC21- Final Inspection - Work Order Release	0.00							
	Memo	0.00							
	Quality Control								

09/12/18
mf
09-12-17

Picklist Print

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Work Order ID: 52361



Parent Item: D3391-021RevH



Parent Item Name: Fwd Tube Assembly

Start Date: 9/23/2009

Required Date: 10/16/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D6013-047RevA		Manufactured	No			100	Each	63.0000	1.0000			
Skidtube Material												

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

LG

63

23935

6

26547

57

260

Each

167.0000

4.0000

D3670-4-200RevA

Manufactured

No



SPACER

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

167

46106

4

47122

36

48198

42

48269

85

1

11/12/11

4

11/12/11

Picklist Print

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Work Order ID: 52361



Parent Item: D3391-021RevH



Parent Item Name: Fwd Tube Assembly

Start Date: 9/23/2009

Required Date: 10/16/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3401-041RevB		Manufactured	No			260	Each	25.0000	1.0000			
Tow Cap Assembly												

Warehouse Loc Qty Loc Code
Location

Main Warehouse

ST

25

36216

1

41931

8

46029

16

x1 41 09/12/07

D3564-13RevD

Manufactured No



260

Each

14.0000

1.0000



Wearshoe

Warehouse Loc Qty Loc Code
Location

Main Warehouse

FP17

1

50270

1

Main Warehouse

ST

13

45409

3

46495

10

x1 41 09/12/07

Picklist Print

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Parent Item: D3391-021RevH



Parent Item Name: Fwd Tube Assembly

Start Date: 9/23/2009

Required Date: 10/16/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3566-13RevC		Manufactured	No			260	Each	53.0000	1.0000			

Gasket

Warehouse Loc Qty Loc Code

Location

Main Warehouse

FP

44

(51606)

44

Main Warehouse

ST

9

45717

1

50265

8

AN960C10L

Purchased

No

260

Each

6,964.000

10.0000



washer

Warehouse Loc Qty Loc Code

Location

OFFSHORE

1112933

x10 210 09/12/07

FG

100

103585

100

Main Warehouse

ST

6864

112116

1864

112612

5000

Picklist Print

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Parent Item: D3391-021RevH



Parent Item Name: Fwd Tube Assembly

Start Date: 9/23/2009

Required Date: 10/16/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
AN3C4A 		Purchased	No			260	Each	2,076.000	10.0000			
BOLT												

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse	M113121	
ST	2076	
112082	14	
112314	140	
112612	246	
112720	1176	
112724	500	

x10 41 09/12/07

D3672-1RevB

Manufactured No

260

Each

1,186.000 4.0000



Phenolic Washer

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	686	
39275	19	
42329	121	
47628	546	

x4 41 09/12/07

AELS-1032-130

Purchased

No

260

Each

0.0000 2.0000



INSERT

M111 529

x2 41 09/12/07

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Shop Packet Print

Page 4

Picklist Print

Page 5

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Work Order ID: 52361



Parent Item: D3391-021RevH



Parent Item Name: Fwd Tube Assembly

Start Date: 9/23/2009

Required Date: 10/16/2009

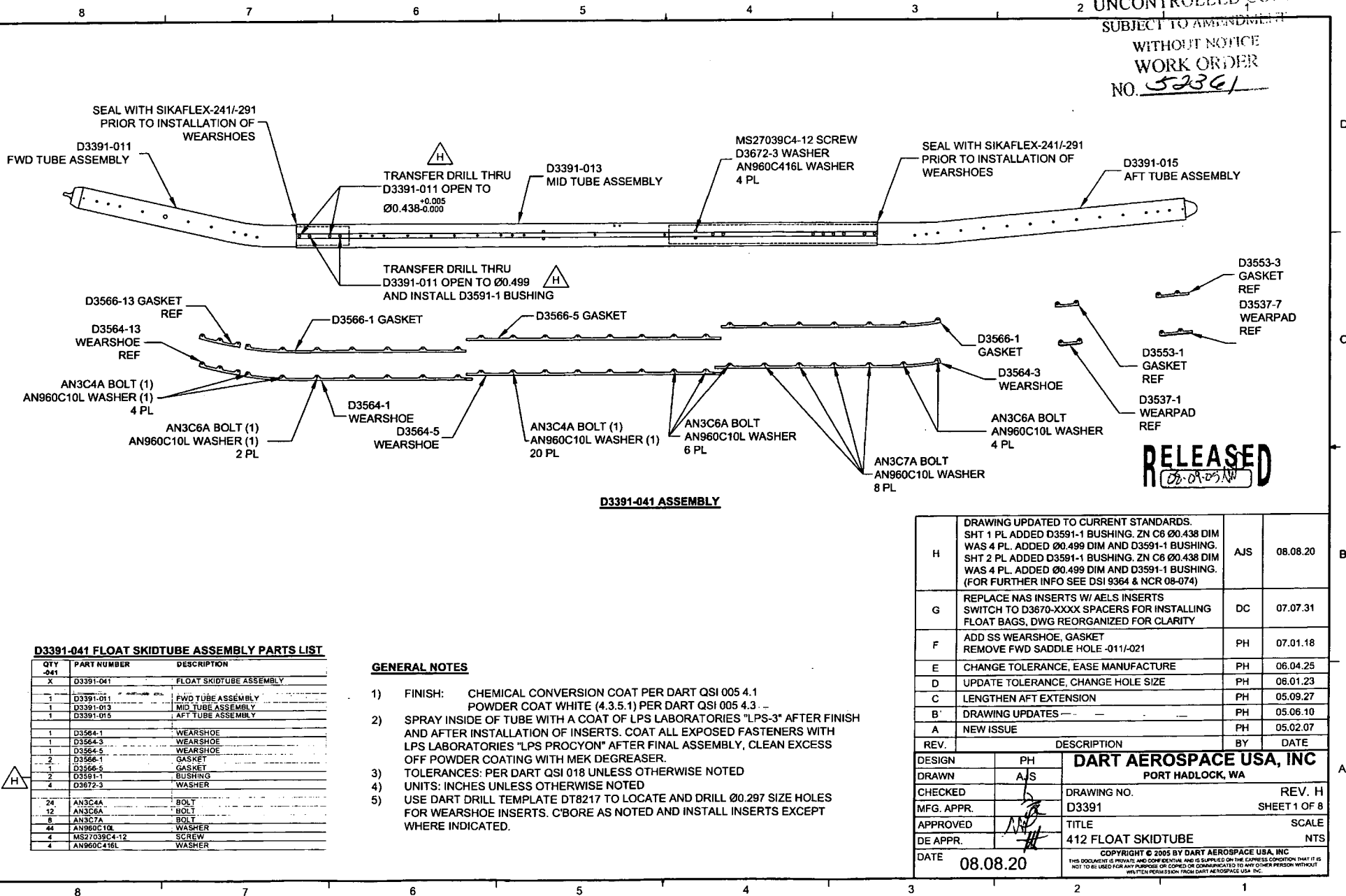
Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
AELS-1032-225		Purchased	No			260	Each	0.0000	10.0000			
										(Y10)	09/12/09	
INSERT												

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 52361



D3391-041 ASSEMBLY

D3391-041 FLOAT SKIDTUBE ASSEMBLY PARTS LIST

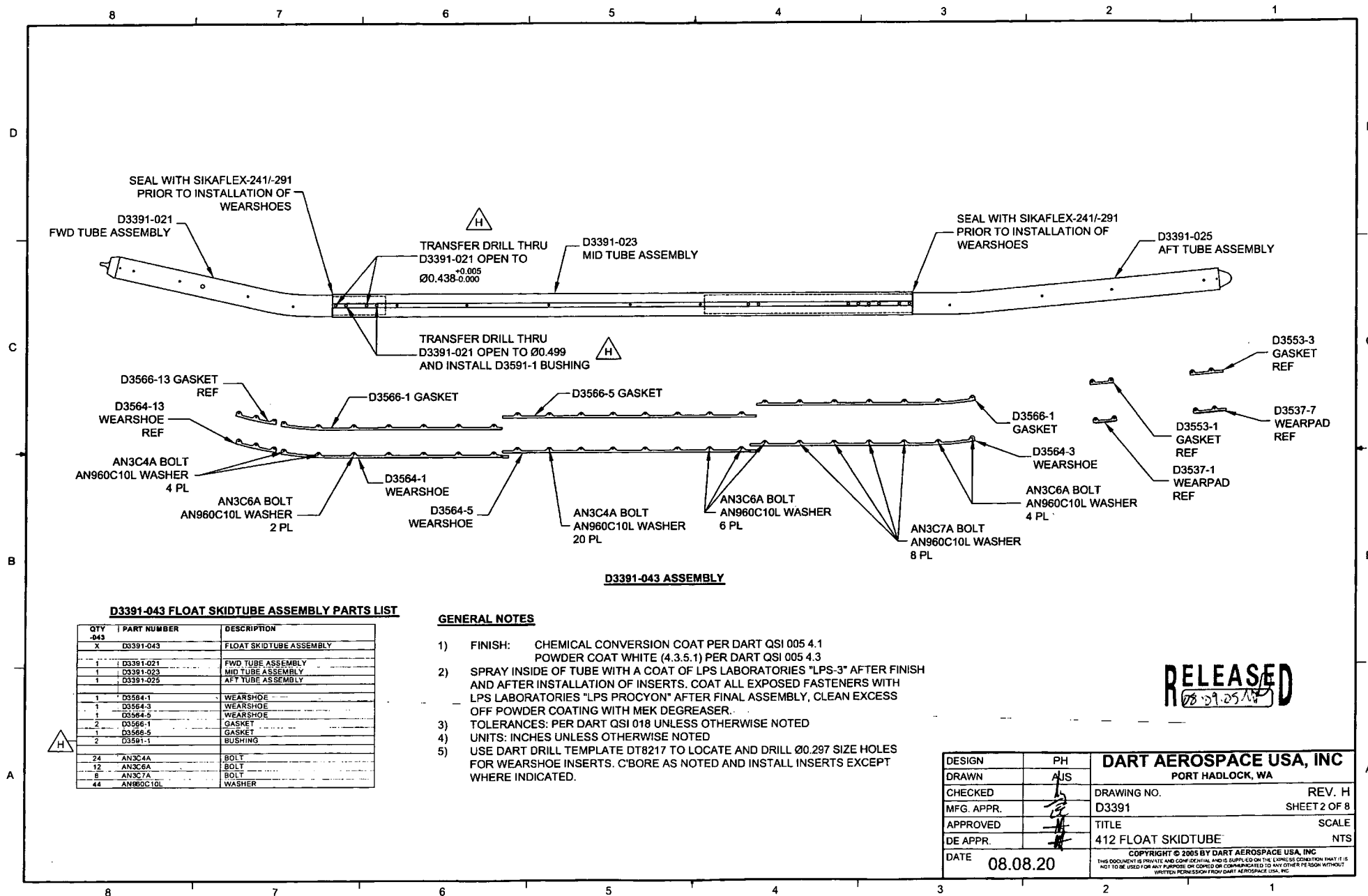
QTY	PART NUMBER	DESCRIPTION
1	D3391-041	Float Skidtube Assembly
1	D3391-011	FWD TUBE ASSEMBLY
1	D3391-013	MID TUBE ASSEMBLY
1	D3391-015	AFT TUBE ASSEMBLY
1	D3564-1	WEARSHOE
1	D3564-3	WEARSHOE
1	D3564-5	WEARSHOE
2	D3566-1	GASKET
1	D3566-5	GASKET
2	D3566-13	BUSHING
4	D3672-3	WASHER
24	AN3C4A	BOLT
12	AN3C6A	BOLT
8	AN3C7A	BOLT
44	AN960C10L	WASHER
4	MS27039C4-12	SCREW
4	AN960C416L	WASHER

GENERAL NOTES

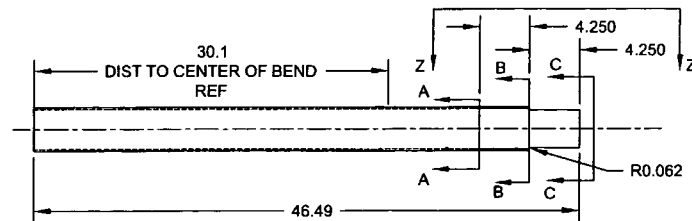
- 1) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3.
- 2) SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH AND AFTER INSTALLATION OF INSERTS. COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF POWDER COATING WITH MEK DEGREASER.
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) USE DART DRILL TEMPLATE DT8217 TO LOCATE AND DRILL Ø0.297 SIZE HOLES FOR WEARSHOE INSERTS. C'BORE AS NOTED AND INSTALL INSERTS EXCEPT WHERE INDICATED.

H	DRAWING UPDATED TO CURRENT STANDARDS. SHT 1 PL ADDED D3591-1 BUSHING. ZN C6 Ø0.438 DIM WAS 4 PL. ADDED Ø0.499 DIM AND D3591-1 BUSHING. SHT 2 PL ADDED D3591-1 BUSHING. ZN C6 Ø0.438 DIM WAS 4 PL. ADDED Ø0.499 DIM AND D3591-1 BUSHING. (FOR FURTHER INFO SEE DSI 9364 & NCR 08-074)	AJS	08.08.20
G	REPLACE NAS INSERTS W/ AELS INSERTS SWITCH TO D3670-XXXX SPACERS FOR INSTALLING FLOAT BAGS, DWG REORGANIZED FOR CLARITY	DC	07.07.31
F	ADD SS WEARSHOE, GASKET REMOVE FWD SADDLE HOLE -011/-021	PH	07.01.18
E	CHANGE TOLERANCE, EASE MANUFACTURE	PH	06.04.25
D	UPDATE TOLERANCE, CHANGE HOLE SIZE	PH	06.01.23
C	LENGTHEN AFT EXTENSION	PH	05.09.27
B	DRAWING UPDATES	PH	05.06.10
A	NEW ISSUE	PH	05.02.07
REV.	DESCRIPTION	BY	DATE
DESIGN	PH	DART AEROSPACE USA, INC	
DRAWN	AJS	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. H
MFG. APPR.		D3391	SHEET 1 OF 8
APPROVED		TITLE	SCALE
DE APPR.		412 FLOAT SKIDTUBE	NTS
DATE	08.08.20	COPYRIGHT © 2005 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR REPRODUCED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	

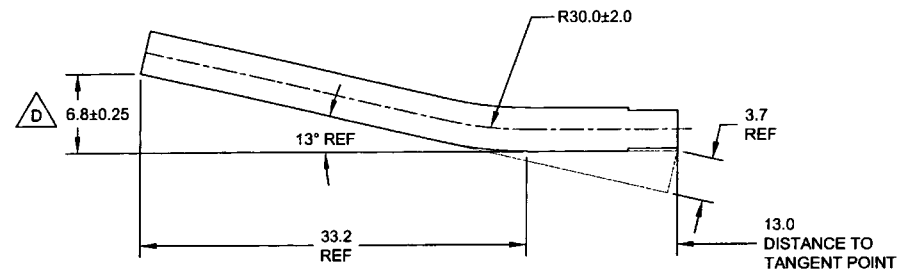
52361



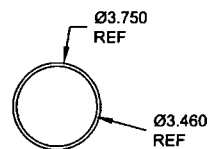
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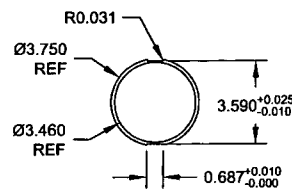
D3391-1 CUTTING DETAIL
(MAKE FROM D6013-047 SKIDTUBE MATERIAL)



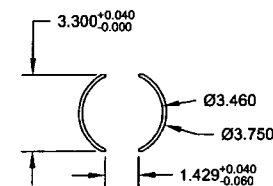
D3391-011/-021 BENDING DETAIL
(MAKE FROM D3391-1)



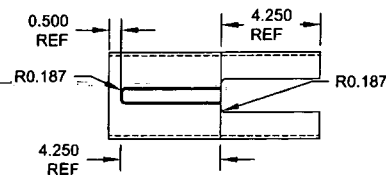
SECTION A-A
SCALE 2X



SECTION B-B
SCALE 2X






SECTION C-C
SCALE 2X

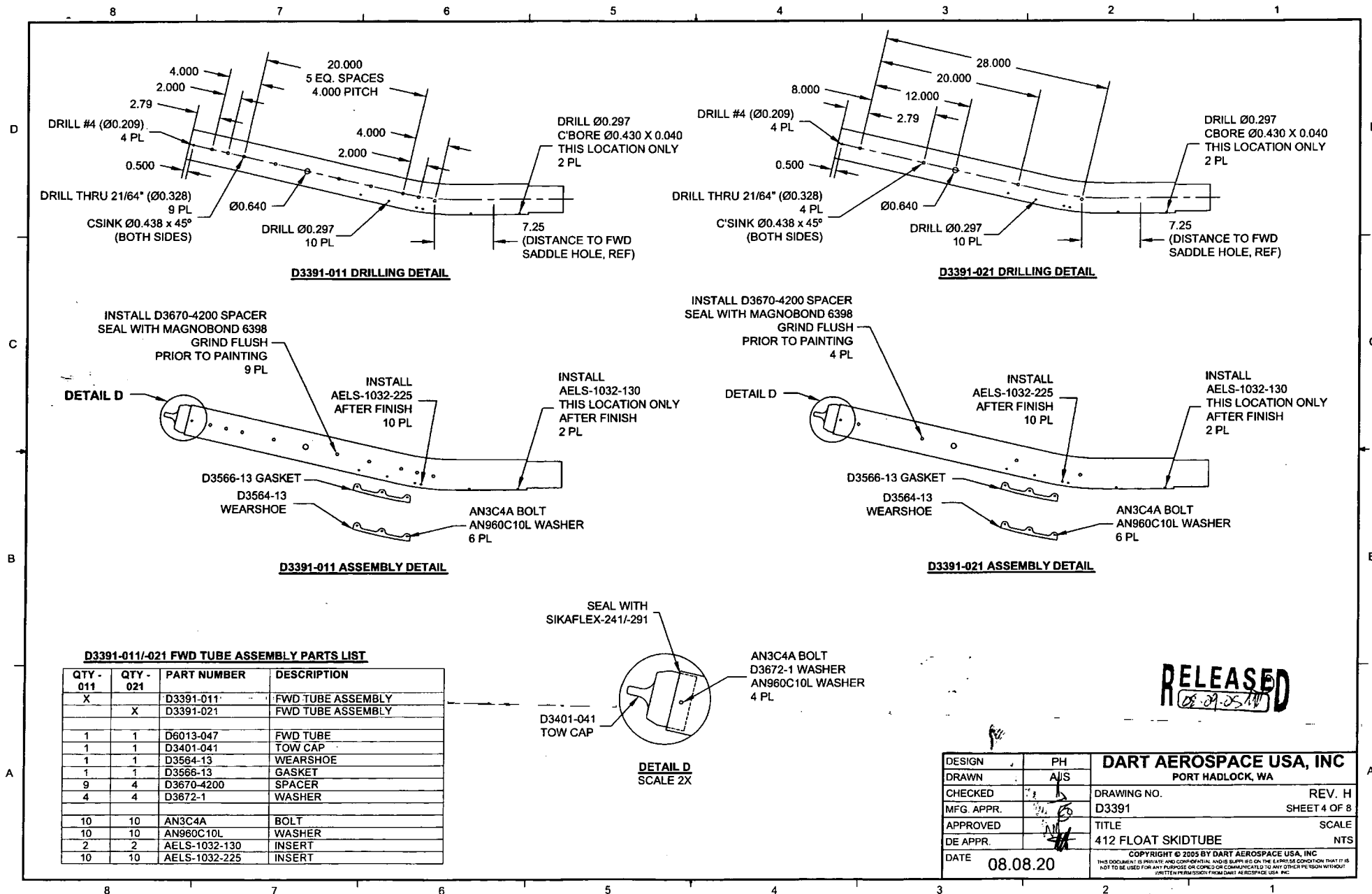


VIEW Z-Z
SCALE 2X

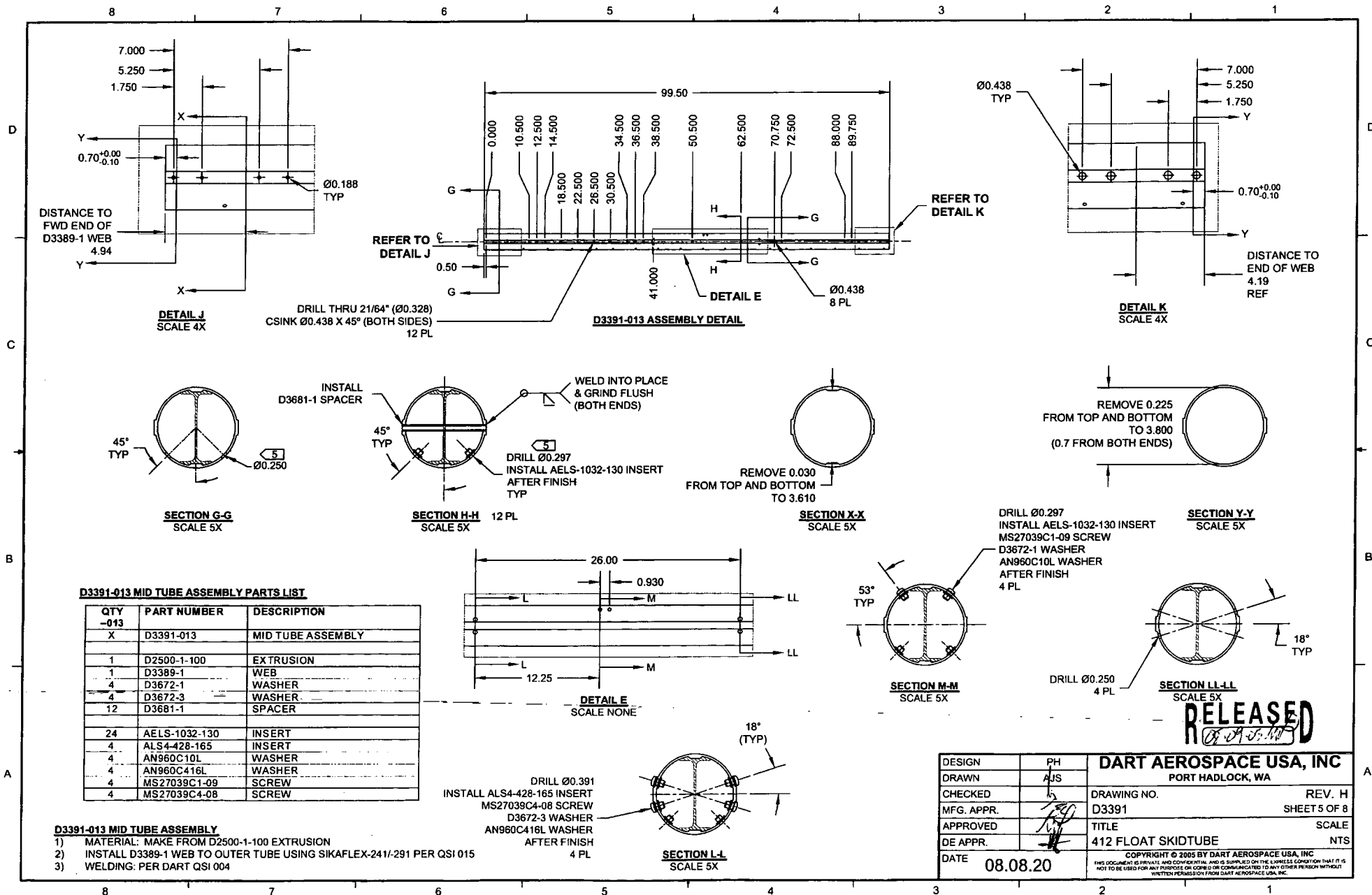
RELEASED
08-05-11

DESIGN	PH	DART AEROSPACE USA, INC	
DRAWN	AJS	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. H
MFG. APPR.		D3391	SHEET 3 OF 8
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DE APPR.		412 FLOAT SKIDTUBE	NTS
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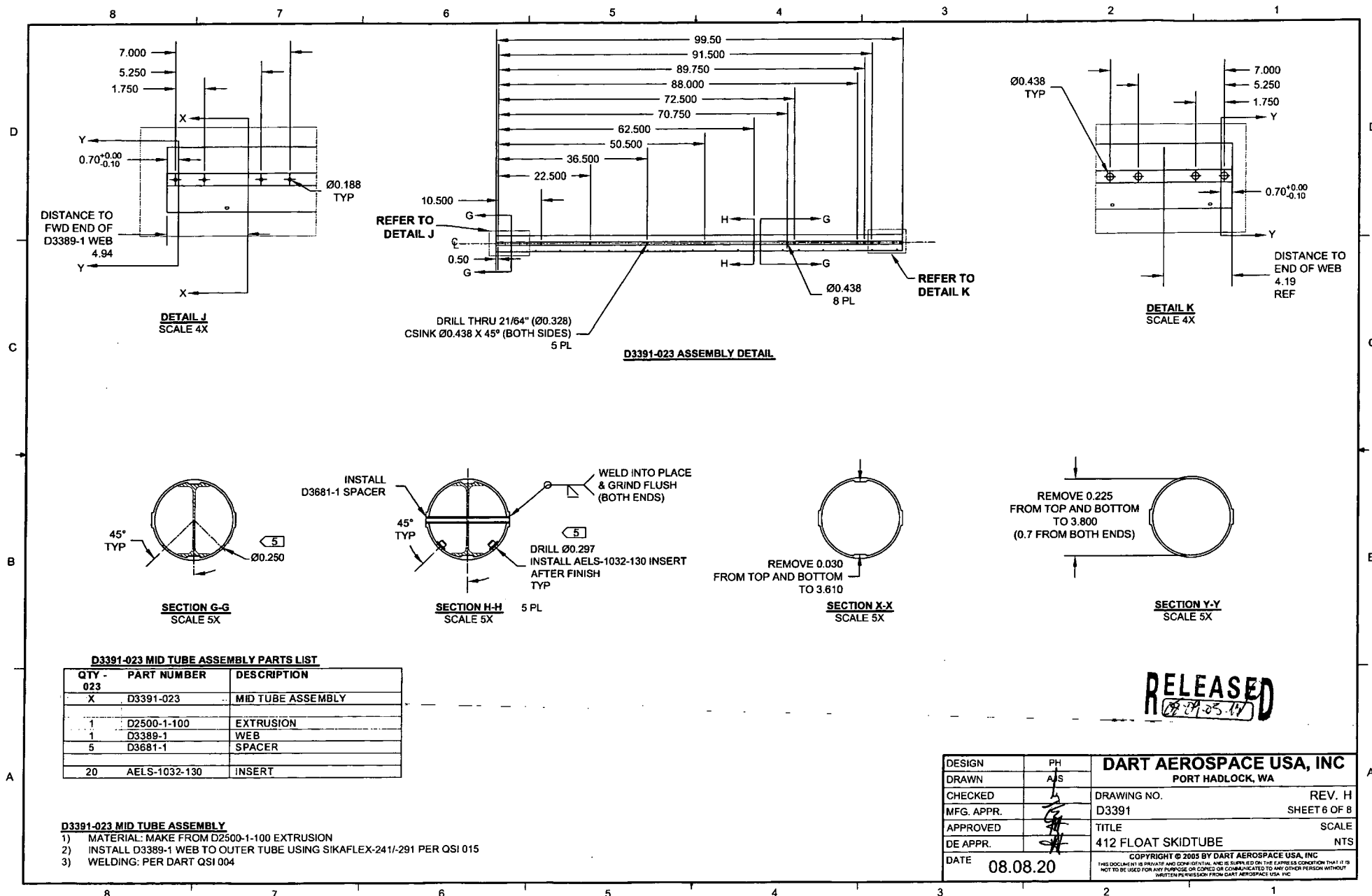
52361



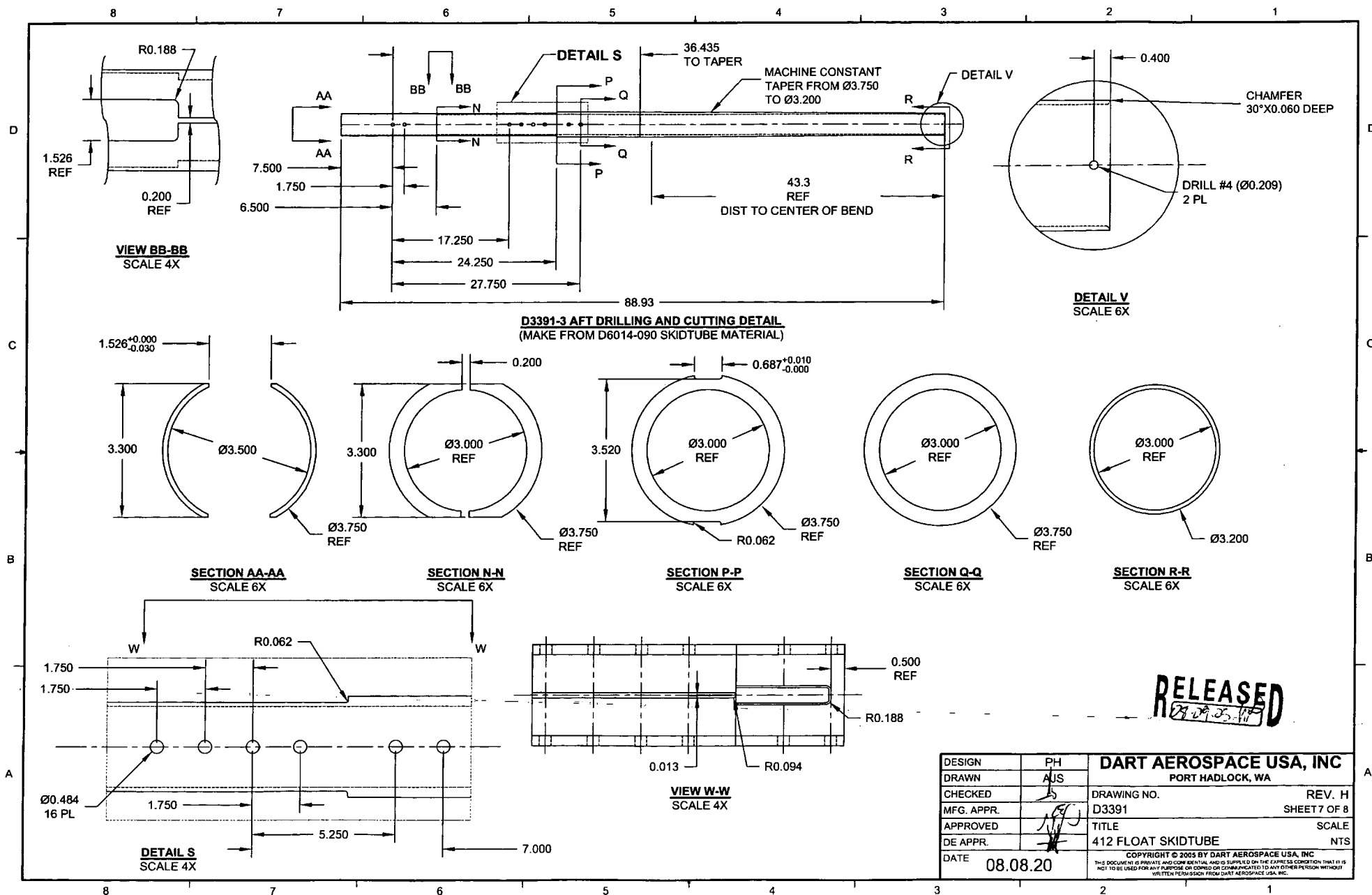
52361



52361



52361



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DRAWN	AJS	PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. H
MFG. APPR.		D3391	SHEET 7 OF 8
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